

Application/Control Number: 09/874,872
Art Unit: 2613

Docket No.: 2001-0161A

REMARKS

Reconsideration and allowance are respectfully requested.

Rejection of Claims 1 – 29 Under Section 102

The Examiner rejects claims 1 – 29 in view of Lee, U.S. Pat. No. 5,748,789.

Applicant traverses the rejection and submits that the claims are patentable.

We first turn to claim 1, which recites a method of encoding video content. The method comprises segmenting the video content into video content portions, assigning a predefined model to each video content portion and routing each video content portion to one of a plurality of encoders based on the model associated with each video content portion.

When explaining the rejection of this claim with the other claims 1, 9, 13, 15, 18, 21, 23 and 25, the Examiner appeared to use primarily the language of claim 9. Applicant will explain first why claim 1 is patentable and simply notes that the language in these claims is different.

The Examiner asserts that each of the steps of claim 1 is taught by Lee. For example, the Examiner finds that Lee teaches in col. 42, lines 47 – 61 the step of assigning a predefined model to each video portion according to a characteristic of the video portion. The Examiner equates the identification of the shape of a video object as taught in Lee with the assignment of a predefined model to a video portion. Applicant respectfully submits that Lee fails to teach this limitation in that Lee teaches a different process practiced by the object definition block 1502. This block separates video input into objects and identifies shapes in the objects. The shapes may be generated by segmentation or predefined. Applicant submits that the predefined model that is assigned to each video content portion differs from the object shape information that is identified by the object definition block 1502.

There is no teaching in Lee in Col. 42 regarding assigning a predefined model to a video content portion. The difference lies in that Lee teaches simply identifying a shape of an object. If the object, for example, is circular, the fact that a predefined “circle” shape may

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be what is identified as the object shape, does not equate to being the same process as assigning a predefined model to a video content portion. In Lee, the object definition block 1502 simply identifies what the object shape is, whereas claim 1 recites assigning a predefined model to each video content portion.

The Examiner never appears to address the limitation of routing each video content portion to one of a plurality of encoders. The Examiner may be concluding that FIG. 33 and column 43, lines 10 – 15 of Lee teach this limitation. The Examiner cites FIG. 33 and columns 42 and 43, specifically noting the plurality of object encoders 1504-1508. Applicant asserts that Lee actually teaches away from the present invention which requires routing video content portions to one of a plurality of encoders based on the model associated with each video content portion. The reason that Lee teaches away from this invention is that the encoders 1504-1508 do not receive each object according to an assigned model. Lee explicitly teaches that “the specific coding methods are not critical to the invention and conventional shape, motion and texture coding methods can be used.” Col. 43, lines 7 – 10. Therefore, the encoders 1504-1508 are “conventional” encoders and there is no routing of video content portions to one of the encoders based on the assigned model. This is further highlighted by the fact that in FIG. 33, Lee shows a single output from the object definition module 1502 wherein each object is defined and then simply forwarded to one of the conventional encoders for separate encoding. There is no “routing” decision that occurs in Lee because where each encoder 1504-1508 is simply a conventional encoder, there is no need for any such routing.

Col. 43, lines 10 – 15 of Lee clearly do not teach the “routing” limitation of claim 1 in that they merely explain that the output of the encoders 1504-1508 are simply combined by a multiplexer 1510 into a bitstream. Further, these lines focus on the process after the encoding, whereas claim 1 recites the step of routing each video content portion to one of the plurality of encoders. Clearly the step in claim 1 occurs before the encoding process. As can

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be appreciated, Lee fails in several respects to teach each limitation of claim 1. Therefore, Applicant respectfully submits that claim 1 is patentable and in condition for allowance.

Claims 2 – 8 each depend from claim 1 and recite further limitations therefrom. Accordingly, these claims are patentable as well.

Claim 9 recites assigning a predefined model to each video portion which is not taught by Lee as set forth above. Furthermore, claim 9 recites encoding video portions associated with the generic model with a generic encoder and encoding video portions associated with the plurality of predefined models with a encoder chosen from a plurality of encoders, each of the plurality of encoders being associated with one of the plurality of predefined models. As mentioned above, Lee actually teaches away from such limitation because the encoders used in FIG. 33 are merely each a “conventional” encoder with no reference to any generic encoder or encoders being associated with any predefined model. Applicant notes the inconsistency in the Examiner’s analysis in that he equates encoders 1504-1508 as the “generic” encoders but then also appears to equate the same encoders as the encoders associated with the predefined models. The same encoders in FIG. 33 of Lee cannot be both generic and associated with the predefined models. Therefore, Lee fails to teach this limitation of claim 9.

Claims 10-12 each depend from claim 9 and recite further limitations therefrom. Accordingly, Applicant submits that these claims are patentable as well.

Claim 13 recites a method of encoding video content that comprises assigning a video content portion to a related, predefined model chosen from a plurality of models or to a generic model and then encoding the video content portions with a generic encoder or an encoder from a plurality of encoders. As mentioned above, Lee fails to teach these limitations. Therefore, Applicant submits that claim 13 and dependent claim 14 are patentable and in condition for allowance.

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Claim 15 includes the limitation of routing each portion associated with a generic model to a generic encoder and routing each portion associated with a model to an encoder associated with the model. These limitations in general are discussed above and not taught by Lee. Therefore, Applicant submits that claim 15 and dependent claims 16 – 17 are patentable and in condition for allowance.

Claim 18 recites a method of generating a bitstream with limitations similar to those discussed above for claim 15. Therefore, based on the discussion above, Applicant submits that Lee fails to teach or suggest each limitation of claim 18 and dependent claims 19 – 20. These claims are therefore patentable and in condition for allowance.

Claim 21 recites routing an extracted and mapped segment to one of the plurality of encoders based on the mapped segments. As discussed above, Lee teaches only using conventional encoders and makes no differentiation of which encoder to send objects to in FIG. 33. Therefore, based on this and the arguments in general set forth above, Applicant submits that claim 21 and depended claim 22 are patentable and in condition for allowance.

Claim 23 recites a method of extracting segments comprising automatically extracting characteristics of the video content and then inputting the video content into a manual extracting unit. The characteristic outputs are analyzed and the method finally comprises manually determining extracted segments using the manual extracting unit. Applicant notes that it does not appear that the Examiner compared claim 23 to Lee in his rejection analysis. Applicant further submits that Lee fails to teach a manual extracting unit as recited in claim 23. Therefore, Applicant submits that claim 23 and dependent claim 24 are patentable and in condition for allowance.

Claim 25 also recites a method of extracting segments from video content comprising automatically extracting segments, manually extracting segments and choosing either the manually extracted segment or automatically generated signal via a switch. The Examiner also does not appear to analyze this claim in the rejection. Applicant submits that Lee fails to

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teach each limitation of claim 25 and dependent claims 26 – 29. Therefore, Applicant requests that the Examiner withdraw the rejection of these claims.

CONCLUSION

Having addressed the rejection of claims 1 – 29, applicant respectfully submits that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,

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